Claims

1. A method for making an acoustic panel with at least a double resonator, this panel (40) comprising, in the thickness direction, in the following order at least the following layers: a multiperforated acoustic skin (42), a primary honeycomb (44), a likewise multiperforated septum (50), a secondary honeycomb (54) and a solid skin (60), the septum (50) being made into a sandwich between the two honeycombs (44, 54), the panel (40) being assembled by stacking and adhesive bonding the aforementioned constituents (42, 44, 50, 54, 60) on a mold (80) in the shape of the panel (40) to be obtained, a transverse pressure being exerted on the constituents (42, 44, 50, 54, 60) during bonding so as to press them against each other as well as against the mold (80), the final shape of the septum (50) in the assembled panel (40) being referenced (50b),
characterized in that the septum (50) is obtained during the assembly of the panel (40) by positioning a plurality of component parts (50a) edge to edge against one of the honeycombs (44, 54) and by covering the component parts (50a) positioned in this way by the other honeycomb (54, 44), the component parts (50a) being cut from a flexible strip, the component parts (50a) being defined so as to enable, with suitable flexing, an approximation of the final shape (50b), by developable curved surfaces substantially joined together, to be obtained, the maximum error being noted as E, the transverse pressure then bringing about the deformation of the component parts (50a) so as to bring them to the final shape (50b), E having a sufficiently low value to prevent the component parts (50a) from creasing and tearing during this deformation.

2. The method as claimed in claim 1, characterized in that the maximum error E has a sufficient value so that the total surface area of the cells (46, 56) of each honeycomb situated entirely facing the component parts

(50a) is at least equal to 90% of the total surface area of the panel (40).

3. The method as claimed in claim 1 or 2, characterized in that the maximum error E is between 2 mm and 2.5 mm.

4. The method as claimed in any one of claims 1 to 3, characterized in that the honeycomb (44, 54) positioned on the mold (80) just before the septum (50) has its surface in contact with the septum (50) precoated with an adhesive having adhesive strength at the moment the component parts (50a) are applied to the honeycomb (44, 54).

5. The method as claimed in claim 4, characterized in that the adhesive strength of the adhesive allows the component parts to be debonded and moved.

6. The method as claimed in any one of claims 1 to 5, characterized in that:

(d) a septum (50) divided into component parts (50a) and the two honeycombs (44, 54) surrounding it are assembled together separately by stacking and adhesive bonding on a mold (80) in the shape of the panel (40), a transverse pressure also being exerted on the constituents (50, 50a, 44, 54) during bonding;

(e) in that a check is then made of the degree of blocking of the holes (52) of the septum (50) by the adhesive;

(f) and in that the panel (40) is then assembled.

7. The method as claimed in any one of claims 1 to 6, characterized in that the septum (50) is cut from a preperforated strip.

8. The method as claimed in claim 7, characterized in that the strip is preperforated in the zones constituting the component parts (50a) of the septum

(50) to be made.

9. The method as claimed in any one of claims 1 to 6, characterized in that the component parts (50a) are perforated after they are cut from the strip and prior to their assembly on a honeycomb (44, 54).

10. The method as claimed in any one of claims 1 to 9, characterized in that the septum is produced with a composite material consisting of glass fiber fabric embedded in an epoxy resin.